

UNITED STATES DEPARTMENT OF THE INTERIOR

DRAFT ENVIRONMENTAL IMPACT STATEMENT

#534176



1088069952

TN
872
.A45
1981
v.2



PROPOSED 1981 OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE NO. 56

PREPARED BY:
THE BUREAU OF LAND MANAGEMENT
OUTER CONTINENTAL SHELF OFFICE

NEW ORLEANS, LA.

TN
872
.A45
1981
v.2

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC BIGHT
MARINE ENVIRONMENTAL STUDIES

VISUAL NO. 8

COUNTY BOUNDARIES

WATER DEPTH (METERS)

SOUTH ATLANTIC OCS GEOLOGICAL STUDIES, FY76, FY78, FY79, FY80

SOUTH ATLANTIC OCS PHYSICAL OCEANOGRAPHIC MODELING - PHASE I AND SATELLITE OCEANOGRAPHY STUDIES, SOUTH ATLANTIC OCS PHYSICAL OCEANOGRAPHY STUDY FY79 AND CIRCULATION MODEL APPLICATION

SOUTH ATLANTIC CULTURAL RESOURCES EVALUATION STUDY

SOUTH ATLANTIC OCS BENCHMARK STUDY, FY77

SOUTH ATLANTIC OCS AREA LIVING MARINE RESOURCES

SEA ISLAND CHARACTERIZATION STUDY

NORTH CAROLINA WETLANDS MAPPING STUDY

ATLANTIC COAST ECOLOGICAL INVENTORY

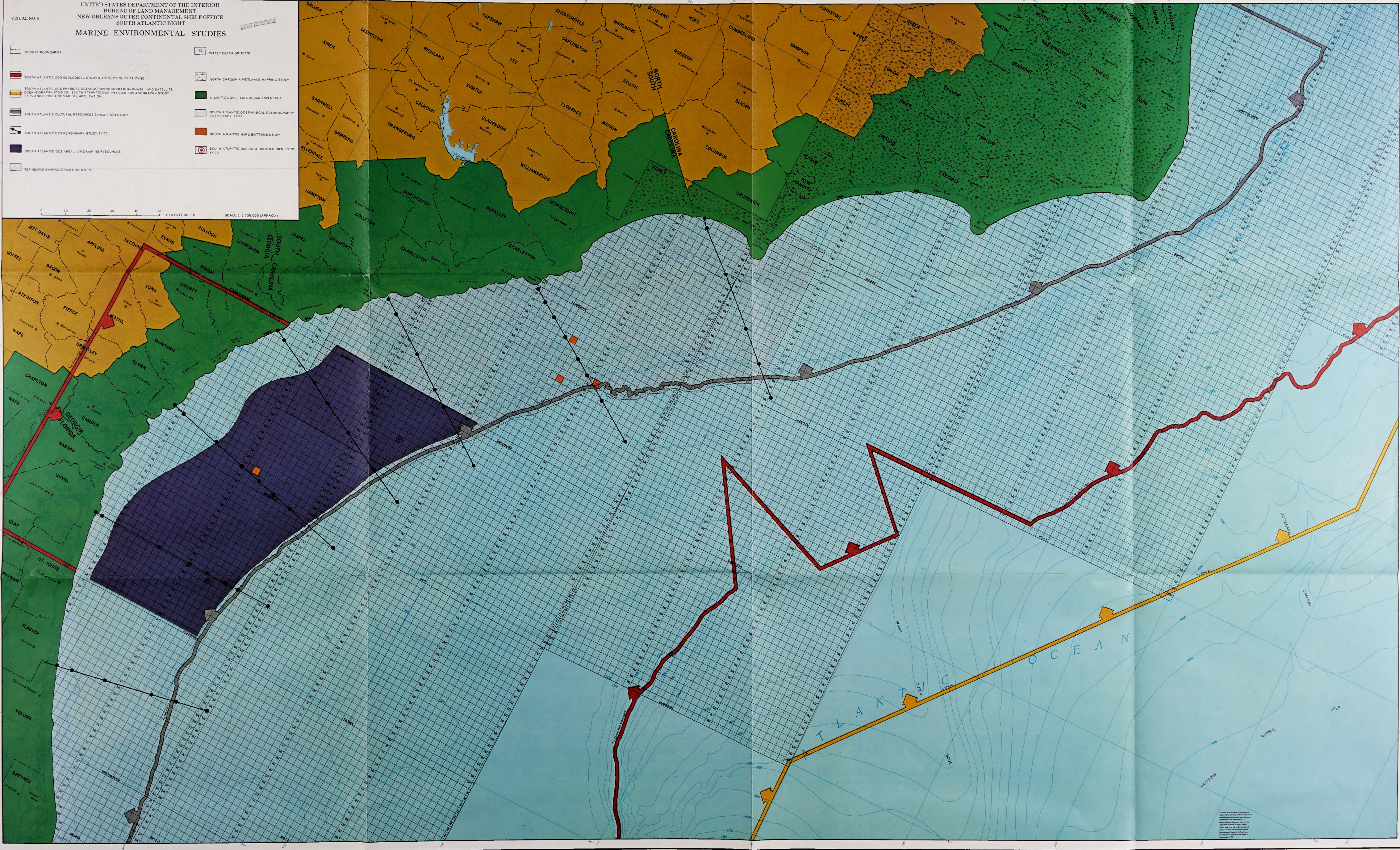
SOUTH ATLANTIC OCS PHYSICAL OCEANOGRAPHY FIELD STUDY, FY77

SOUTH ATLANTIC HARD BOTTOMS STUDY

SOUTH ATLANTIC OCS DATA BOUY STUDIES, FY78, FY79

0 10 20 30 40 50 STATUTE MILES

SCALE 1:1,000,000 (APPROX.)



07534176

ID. 9906 9952

TN
872
-A45
1931
V. 2

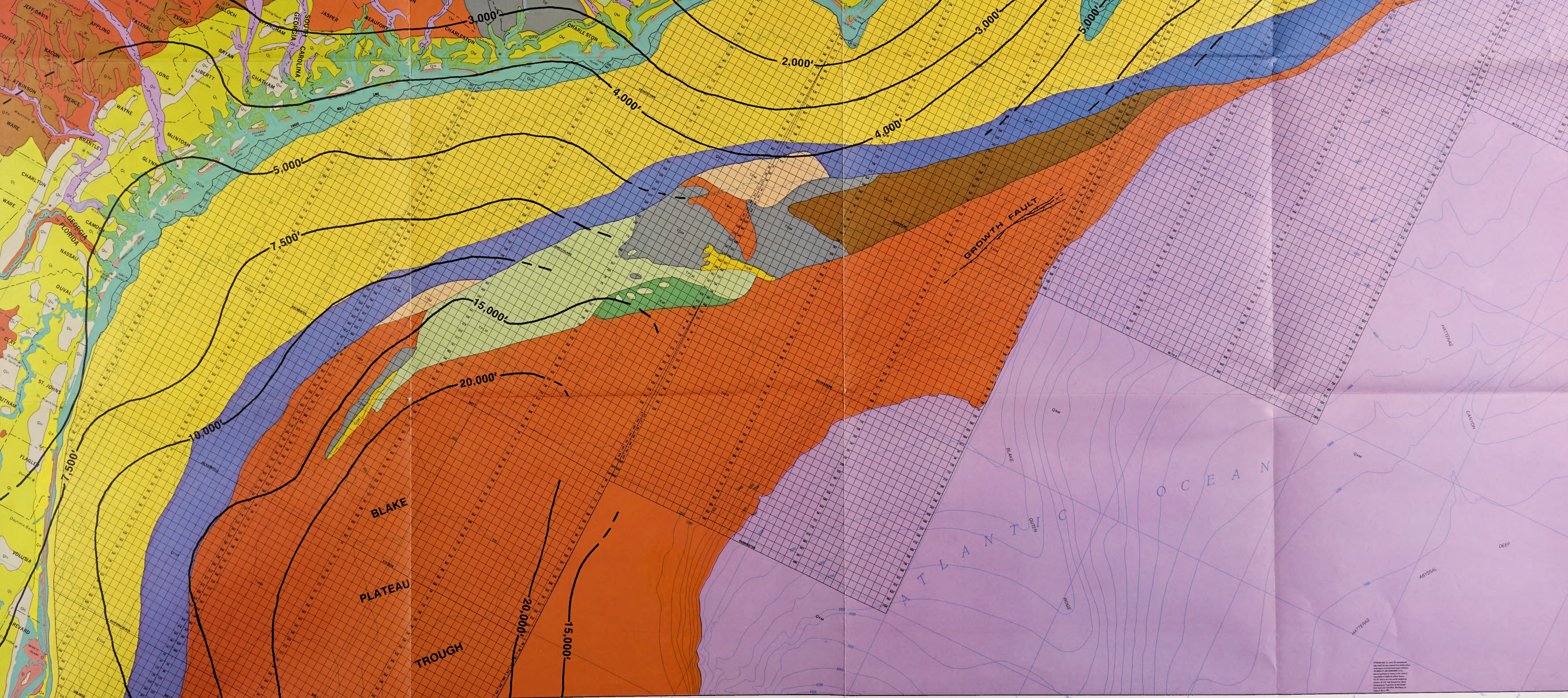
BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC BIGHT
GEOLOGY

COUNTY BOUNDARIES		WATER DEPTH (METERS)	
ERA	PERIOD	SYMBOL	DESCRIPTION
CENOZOIC	QUATERNARY	Q	GLACIAL
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
	PLEISTOCENE	Qp	PLATEAU
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
MESOZOIC	CENOZOIC	Q	GLACIAL
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
	PLEISTOCENE	Qp	PLATEAU
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
PALEOZOIC	CENOZOIC	Q	GLACIAL
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
	PLEISTOCENE	Qp	PLATEAU
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
PRECAMBRIAN	CENOZOIC	Q	GLACIAL
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT
	PLEISTOCENE	Qp	PLATEAU
		Qm	MODERN MARSH
		Qh	HILLS AND LAKES
		Qc	COASTAL MARSH
		Qd	DEPOSIT

SOURCES:
U.S. MACINTYRE, 1970 THE JOURNAL OF THE ELISHA MITCHELL SCIENTIFIC SOCIETY
JOHN C. WAHER, 1971 GEOLOGICAL SURVEY PROFESSIONAL PAPER #155
J.R. HALL AND HOYT, 1969 AN APPRAISAL OF THE EVOLUTION OF THE LOWER ATLANTIC COASTAL PLAIN OF GEORGIA U.S.A. 180 TRANS. V.45 P.9, FIG. 2
H.F. BELONG AND W.C. HOLLAND, 1970 BATHYMETRIC MAPS EASTERN CONTINENTAL MARGIN U.S.A. 1:100,000
CHARLES D. HOLLISTER, 1973 U.S.G.S. PROFESSIONAL PAPER 529M
JOHN H. HOYT AND VERNON J. HENRY, JR., 1971 GEOLOGICAL SOCIETY OF AMERICA, V.12, P.19
K.D. EMERY AND F.K. ZARUDNY, 1987 U.S.G.S. PROFESSIONAL PAPER 181-A
D.J. COLLETT AND H.S. JOHNSON, JR., 1977 GEOLOGIC MAP OF S.E. U.S. ATLANTIC COASTAL PLAIN AND ADJACENT OCEANIC BASIN U.S.G.S. GEOLOGIC MAP 1:100,000
AMERICAN ASSOCIATION OF PETROLOGISTS, 1973 GEOLOGICAL HIGHWAY MAPS, SOUTHEASTERN REGION AND MID-ATLANTIC REGION
EDGALL, D.W. AND MCARTHY, S.M., 1977 GEOLOGIC MAP OF S.E. U.S. ATLANTIC COASTAL PLAIN AND ADJACENT OCEANIC BASIN U.S.G.S. GEOLOGIC MAP 1:100,000
GEORGIA DEPT. NAT. RES., 1975 MAP OF GEOLOGY OF COASTAL GEORGIA, COMPILED BY U.S. DEPT. COMMERCE, OCM
U.S. ARMY CORPS OF ENGINEERS, 1973 ENVIRONMENTAL RECONNAISSANCE OF THE STATE OF NORTH CAROLINA
PAUL L. CH. AND GILSON, N.P., 1975 SUBSURFACE GEOLOGY OF THE FLORIDA-ANTILLAS SHELF, SLOPE AND INNER BLAKE PLATEAU U.S.G.S. OPEN FILE REPT. 79-448

0 10 20 30 40 50
STATUTE MILES
SCALE 1:1,000,000 (APPROX)



#09584176

ID: 88069952

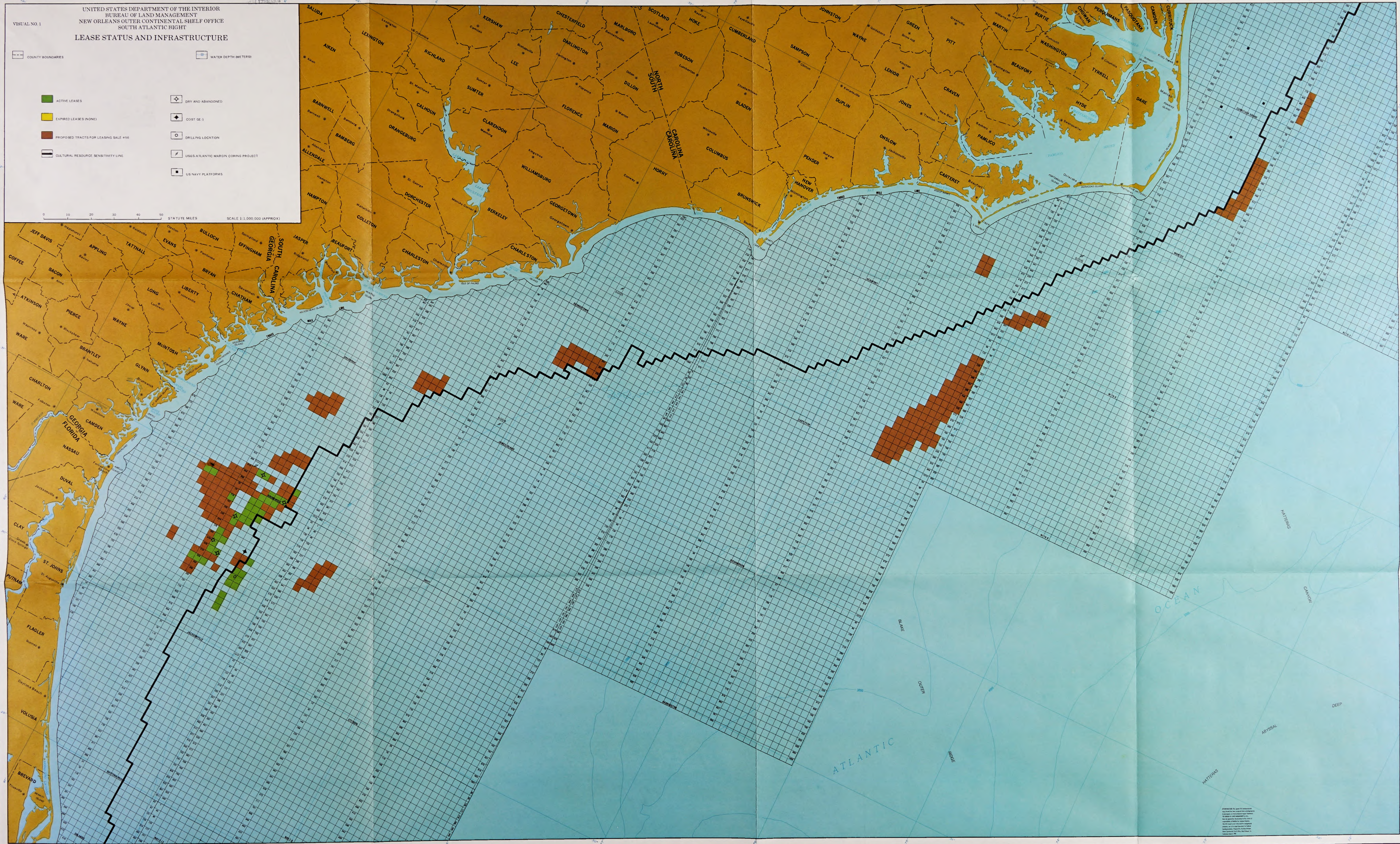
TN
872
-A45
1981
v.2

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC BIGHT
LEASE STATUS AND INFRASTRUCTURE



0 10 20 30 40 50 STATUTE MILES
SCALE 1:1,000,000 (APPROX)



07534176

ID: 98064952

TN
372
.A95
1991
v. 2

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

WATER DEPTH (METERS)



SOURCES: Charles D. Hollister, 1973 U.S.G.S. Professional Paper 529M. Pitkey, O. H. in BLM Environmental Studies Final 1977 Report, U.S. Geological Survey, Marine Geology Division. Windom, H. L. and Betzer, P. R. in BLM South Atlantic Baseline Studies, 1977 Final Report, by Texas Instruments, Inc.

0 10 20 30 40 50 STATUTE MILES SCALE 1:1,000,000 (APPROX)



07534176 ID: 88069952

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

TN
872
.A45
1981
v.2

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC RIGHT

RECREATION, CULTURE AND UNDERSEA FEATURES
PELAGIC FISHERIES AND LIVEBOTTOMS

NOTE: Numbered Symbols Are Keyed To Listings On Back Of Visual

WATER DEPTH (METERS)

STATE SITES & SYSTEMS OF ENVIRONMENTAL CONCERN

STATE PARK SYSTEM AREAS

STATE WILDLIFE & CONSERVATION AREAS

STATE FOREST

STATE WILD, SCENIC OR RECREATIONAL RIVERS

STATE DESIGNATED HERITAGE SITES

MIGRATORY PELAGICS

LIVEBOTTOM TYPE ZONES

LOW RELIEF—1 meter of relief predominates live bottom type in inner shelf zone (about 100-400m) but found as shallow as 30m.

HIGH RELIEF—2 meter of relief predominates live bottom type in inner shelf zone (about 100-400m) but found as shallow as 30m.

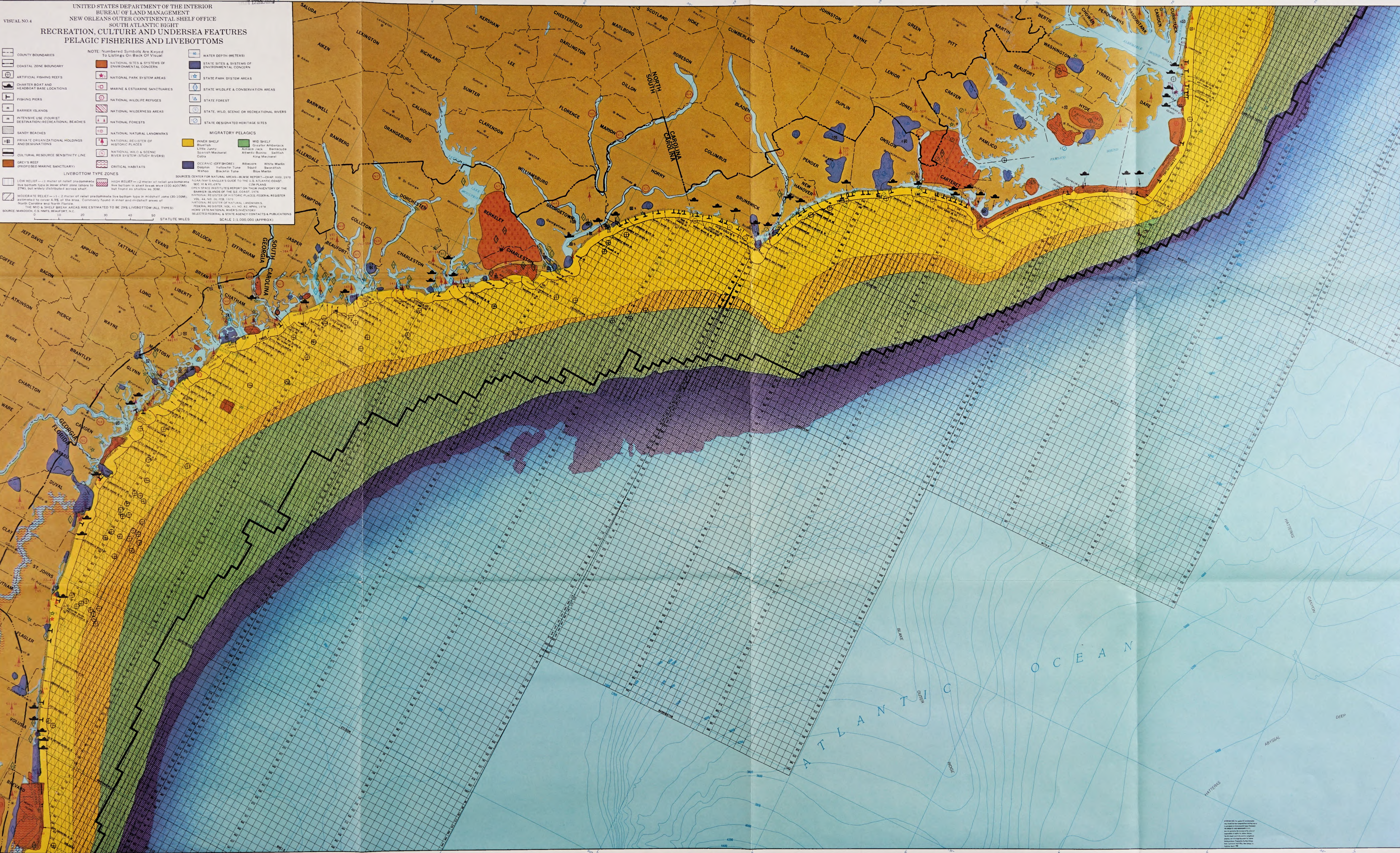
MODERATE RELIEF—1-2 meter of relief predominates live bottom type in midshelf zone (30-100m) estimated to cover 4-8% of the area. Commonly found in inner and midshelf zones of North Carolina and North Florida.

THE MID-SHELF BREAK AREAS ARE ESTIMATED TO BE 2% LIVEBOTTOM (ALL TYPES)

SOURCE: MANDUCH, C.S. NPS, BEAUFORT, N.C.

STATUTE MILES

SCALE 1:1,000,000 (APPROX)



07534176 ID: 88069952

VISUAL NO. 7

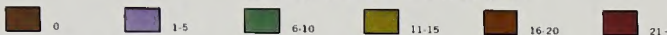
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
GULF OF MEXICO AND ATLANTIC OCEAN
HURRICANES AND EARTHQUAKES

SELECTED TROPICAL CYCLONES (1954-1979) AND SEISMS IMPACTING THE SOUTHEASTERN
UNITED STATES ATLANTIC AND GULF COASTS AND CONTIGUOUS AREAS OF THE OUTER CONTINENTAL SHELF

TROPICAL CYCLONES

- | | | | |
|-----------------------------|---------------------------|---------------------------|----------------------------|
| 1. Carol 8/25-9/01/54 | 16. Helene 9/21-10/04/58 | 31. Alma 6/04-6/14/66 | 46. Dawn 9/05-9/14/72 |
| 2. Edna 9/02-9/15/54 | 17. No Name 6/18-6/21/59 | 32. Inez 9/21-10/11/66 | 47. Della 9/01-9/07/73(T) |
| 3. Hazel 10/05-10/13/54 | 18. Cindy 7/08-7/12/59 | 33. Baulah 9/05-9/26/67 | 48. Carmen 8/29-9/14/74 |
| 4. Connie 8/03-8/15/55 | 19. Gracie 9/20-10/02/59 | 34. Doris 9/08-9/21/67 | 49. Caroline 8/24-9/01/75 |
| 5. Diane 8/07-8/21/55 | 20. Donna 8/29-9/14/60 | 35. Abby 6/01-6/13/68 | 50. Eloise 9/13-9/24/75 |
| 6. Hilda 9/10-9/20/55 | 21. Ethel 9/14-9/17/60 | 36. Brenda 9/13-9/26/68 | 51. Gladys 9/22-10/04/75 |
| 7. Ione 9/10-9/24/55 | 22. Carla 9/03-9/13/61 | 37. Dolly 8/10-8/17/68 | 52. Belle 8/06-8/10/76 |
| 8. Janet 9/21-9/30/55 | 23. Alma 8/26-9/02/62 | 38. Camille 8/14-8/22/69 | 53. Anita 8/29-9/03/77 |
| 9. Anna 7/25-7/27/56 | 24. Cindy 9/16-9/20/63 | 39. Gerda 9/06-9/10/69 | 54. Bette 9/03-9/09/77 |
| 10. Betty 8/09-8/20/56 | 25. Ginny 10/16-10/30/63 | 40. Laurie 10/17-10/27/69 | 55. Clara 9/05-9/12/77 |
| 11. Dora 9/10-9/12/56(T) | 26. Cleo 8/20-9/06/64 | 41. Alma 5/17-5/27/70 | 56. Arnela 7/30-8/01/78(T) |
| 12. No Name 6/08-6/15/57(T) | 27. Dora 8/28-9/16/64 | 42. Calla 7/31-8/05/70 | 57. Bess 8/05-8/08/78(T) |
| 13. Audrey 6/25-6/29/57 | 28. Hilda 9/28-10/05/64 | 43. Edith 9/05-9/18/71 | 58. Debra 8/26-8/29/78(T) |
| 14. Daisy 8/24-8/31/58 | 29. Isobel 10/08-10/17/64 | 44. Ginger 9/06-10/05/71 | 59. Bob 7/09/71/6/19 |
| 15. Ella 8/30-9/06/58 | 30. Betty 8/27-9/13/65 | 45. Agnes 6/14-6/23/72 | 60. David 8/25-9/07/79 |
| | | | 61. Frederic 8/29-9/14/79 |

DAMAGING TROPICAL CYCLONES 1901-1955



Notes: 1) Hurricane-Tropical Cyclone with sustained surface wind speeds of 64 km (74 mph) or more.
2) Tropical Storm (TS)-Tropical Cyclone with sustained surface wind speeds of 34 to 63 km (39-73 mph).
3) Storm tracks are somewhat generalized. For more exact information, refer to National Weather Service publications.

EARTHQUAKES

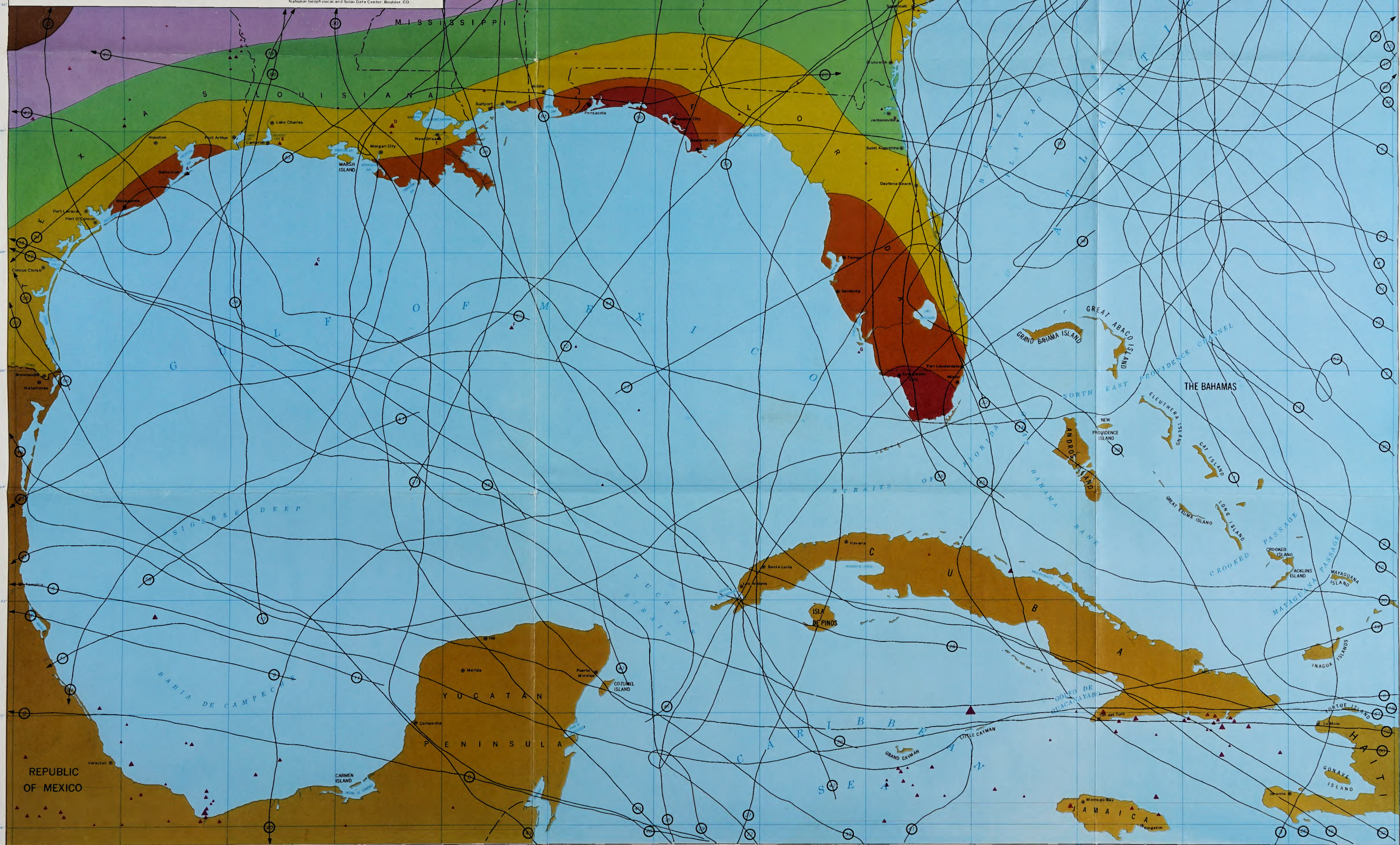
EPICENTER	LATITUDE	LONGITUDE	YEAR RECORDED	MAXIMUM INTENSITY	MAGNITUDE
A	29.3N	94.8W	1956	IV	< 4.0
B	29.8N	93.1W	1959	IV	< 4.0
C	27.8N	92.1W	1963	IV	4.0
D	30.1N	91.0W	1930	VI	6.0
E	29.9N	90.1W	1882	III	6.0
F	26.7N	88.1W	1978	IV	7.5
G	26.3N	82.1W	1948	IV	8.5
H	30.2N	81.4W	1893	V	
I	32.9N	80.0W	1886	V	
J	33.0N	79.0W	1960	V	
K	34.6N	76.0W	1882	V	

Notes: 1) Location of epicenters from recorded data 1699-1978.

2) Width of base of triangle indicates maximum intensity at epicenters.

3) For more exact information refer to National Geophysical and Solar Data Center.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, National Hurricane Center
Core Data, U.S. and Environmental Data Service
National Geophysical and Solar Data Center, Boulder, CO.



#07534176 ID: 86069952

TN
872
A45
1981
v.2

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC BIGHT

PHYSICAL OCEANOGRAPHY AND METEOROLOGY

COUNTY BOUNDARIES

WATER DEPTH (METERS)

COASTAL CURRENTS, DIRECTIONS AND SPEED (KTS.)

ANNUAL CURRENT ROSES FOR 1° SQUARE

COASTAL CITIES WIND VELOCITY ROSES

RESULTANT VECTORS FROM NAVOCEANO DATA

APPROXIMATE AXIS OF MAXIMUM STRENGTH OF GULF STREAM WITH SPEED IN KNOTS

GULF STREAM ENVELOPE FROM NAV. HYDRO. OFFICE PUB. NO. 700

SPRING TIDAL RANGE—MAGNITUDES IN METERS (NAVY CLIMATE AND OCEANOGRAPHIC ATLAS, 1959)

SYNOPTIC METEOROLOGICAL OBSERVATION AREAS U.S. NAVAL WEATHER SERVICE COMMAND

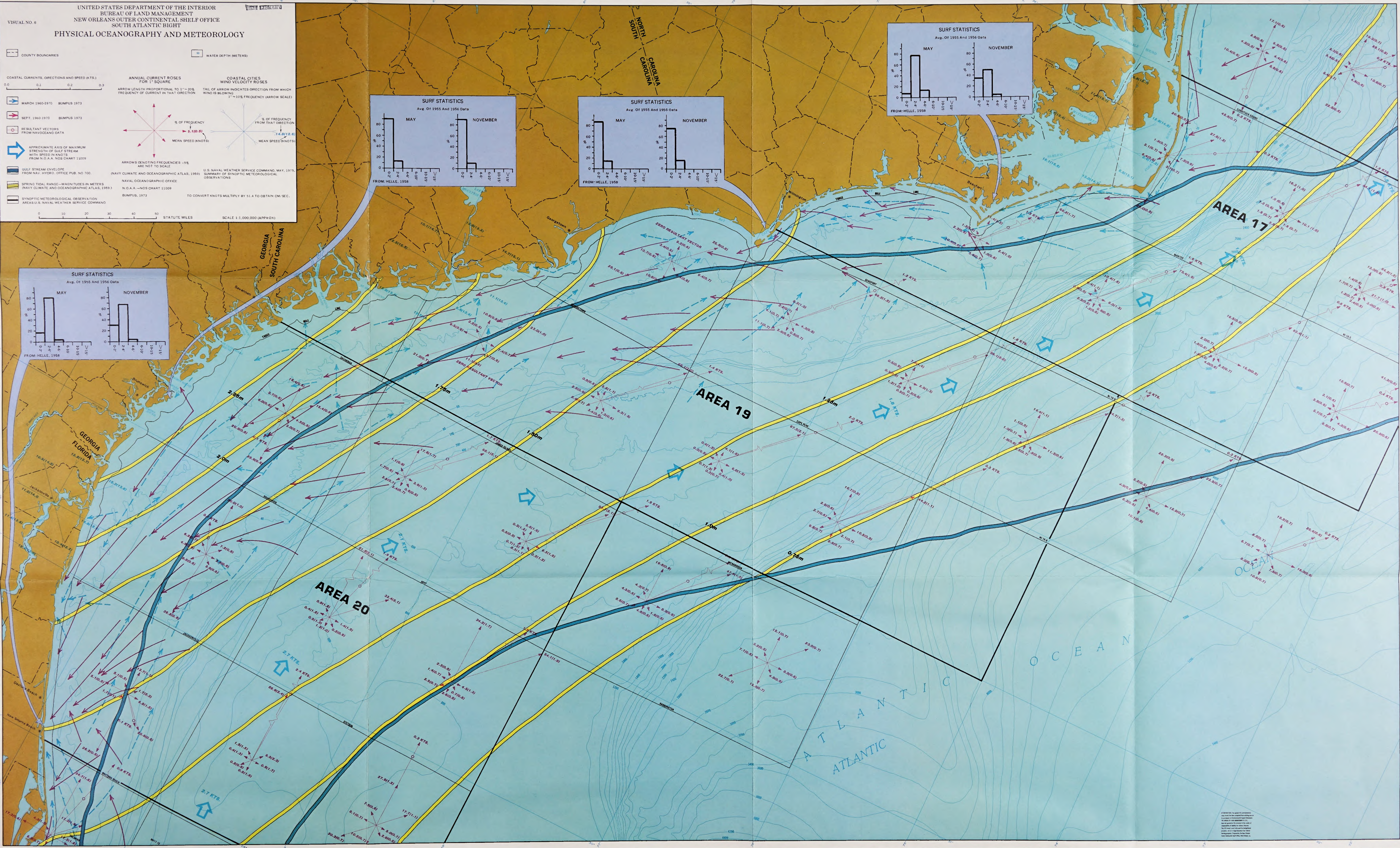
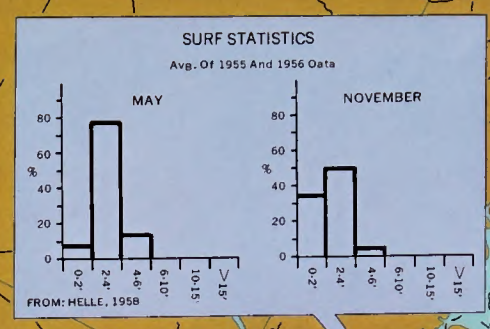
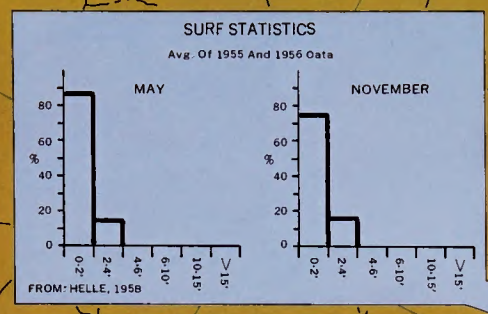
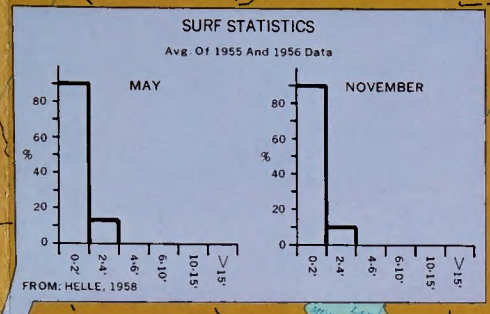
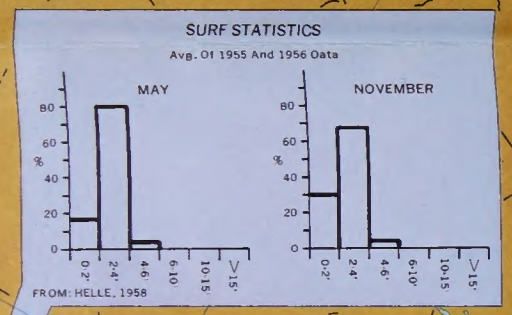
U.S. NAVAL WEATHER SERVICE COMMAND, MAY, 1975, SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS

NAVY CLIMATE AND OCEANOGRAPHIC OFFICE N.O.A.—NOS CHART 11009

TO CONVERT KNOTS MULTIPLY BY 1.85 TO OBTAIN CM/SEC.

SCALE 1:1,000,000 (APPROX)

STATUTE MILES



07534176 ID: 06009952

TN
072
.A45
1981
v. 2

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
SOUTH ATLANTIC BIGHT
DEMERSAL FISHERIES

VISUAL NO. 5

0 10 20 30 40 50 STATUTE MILES
SCALE 1:1,000,000 (APPROX.)

COUNTY BOUNDARIES

ROYAL RED SHRIMP GROUNDS
-66% OF CATCH
34-65% OF CATCH
-33% OF CATCH

BROWN SHRIMP
Fall migration to south of Cape Canaveral area
-66% OF CATCH
34-65% OF CATCH
-33% OF CATCH

WHITE SHRIMP
Inshore-offshore seasonal migration
-66% OF CATCH
34-65% OF CATCH
-33% OF CATCH

PINK SHRIMP
Local offshore summer migration
-33% OF CATCH

INSHORE FISHERIES
Blue Crab, Oysters, Shad, Striped Bass, Mullet, Seatrouts (shoreward of line)

CALICO SCALLOP GROUNDS
Highly variable—the locations shown are historical

WATER DEPTH (METERS)

AMERICAN LOBSTER AND RED CRAB

MID-DEPTH COMPLEX
Gulf Flounder, Red Snapper, Vermilion Snapper, Speckled Hind

DEEP-WATER COMPLEX
Black Tarfish, Yellow Edge Grouper, Red Porgy

WINTERING GROUNDS FOR MID-ATLANTIC STOCKS OF
Puke, Spot, Grey Seatrout, Cunner, Black Sea Bass, Fluke, Butterfish, Northward Spring Migration

WINTERING GROUNDS FOR MID-ATLANTIC STOCKS OF
Scup, Fluke, Butterfish, Northward Spring Migration



Copyright 1985 by the United States Department of the Interior, Bureau of Land Management. This map is a reproduction of a map published by the Bureau of Land Management, New Orleans Outer Continental Shelf Office, in 1985. It is not to be used for any purpose other than that for which it was originally published. The map is published by the Bureau of Land Management, New Orleans Outer Continental Shelf Office, in 1985. It is not to be used for any purpose other than that for which it was originally published.

0753476 10:48069952

TN
842
A45
1981
V. 2

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

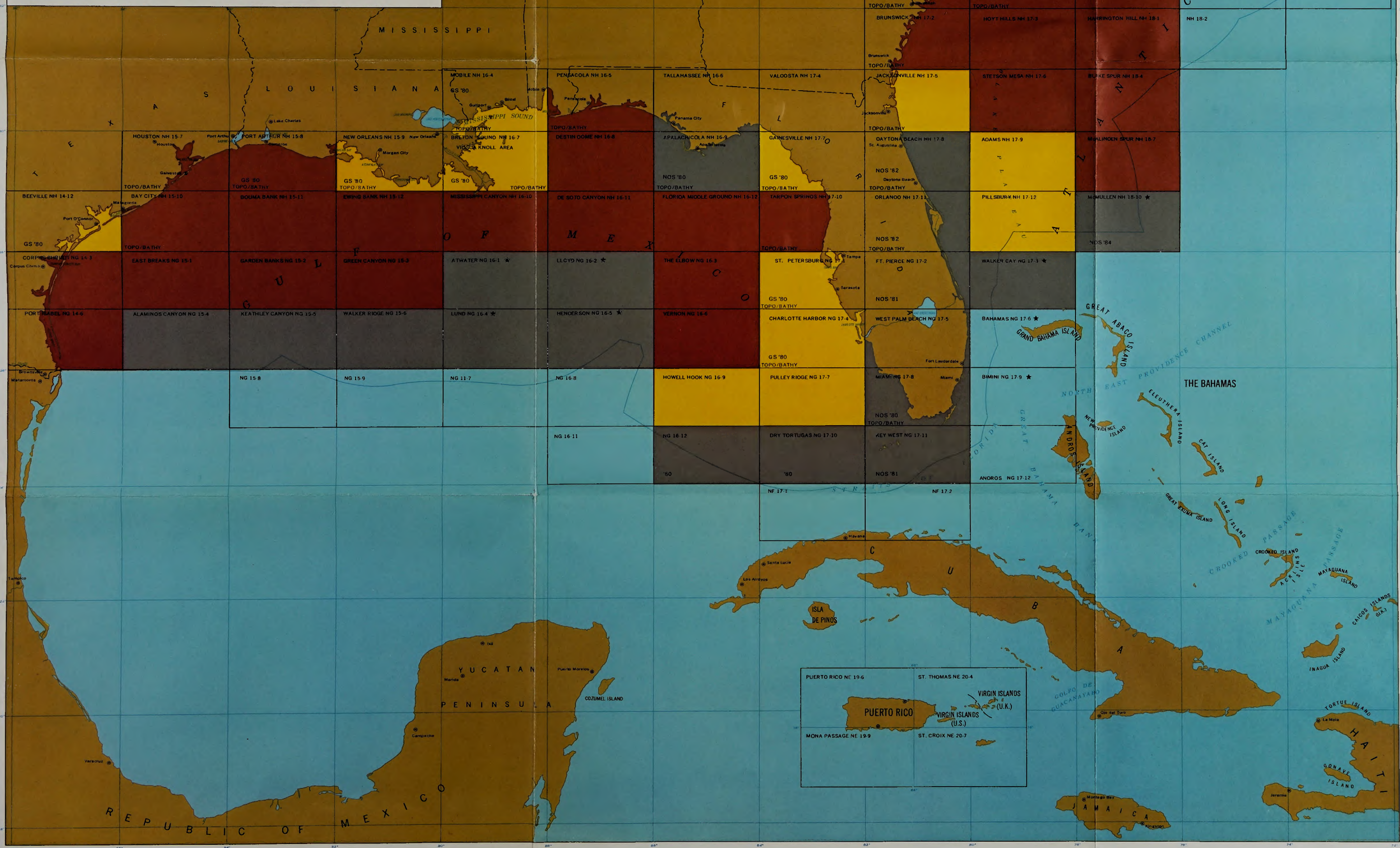
VISUAL NO. 9

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
GULF OF MEXICO AND ATLANTIC OCEAN

INDEX OF TOPOGRAPHIC
BATHYMETRIC MAPPING FOR
THE SOUTHERN UNITED STATES OCS AREA
AT A SCALE OF 1:250,000

- MAPS SCHEDULED TO BE COMPLETED THRU 1983
- PRELIMINARY EDITION AVAILABLE
- FINAL EDITION AVAILABLE
- PROPOSED NAME
- 200 MILE FISHERY CONSERVATION ZONE
- GS GEOLOGICAL SURVEY
- NOS NATIONAL OCEAN SURVEY

NOTES: * MAPS PRODUCED FOR THE BUREAU OF LAND MANAGEMENT'S ENVIRONMENTAL ASSESSMENT PROGRAM
OIL AND GAS LEASING
* TOPOGRAPHY COMPILED BY THE GEOLOGICAL SURVEY
* BATHYMETRY AND SHORELINE COMPILED BY NATIONAL OCEAN SURVEY



#07534176

18: 98664952

TN
872
.A45
1981
v2

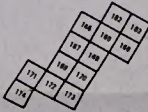
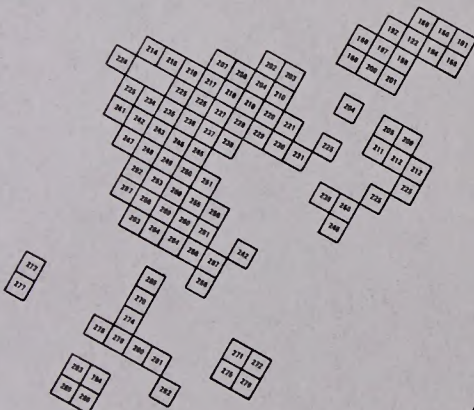
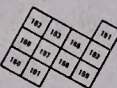
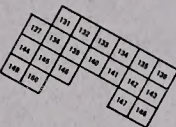
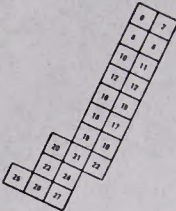
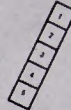
BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

SOUTH ATLANTIC BIGHT
OVERLAY

BLM-1000
Bureau of Land Management
P.O. Box 250
Denver, CO 80222

TRACT NUMBER

BLM-1000
Bureau of Land Management
P.O. Box 250
Denver, CO 80222

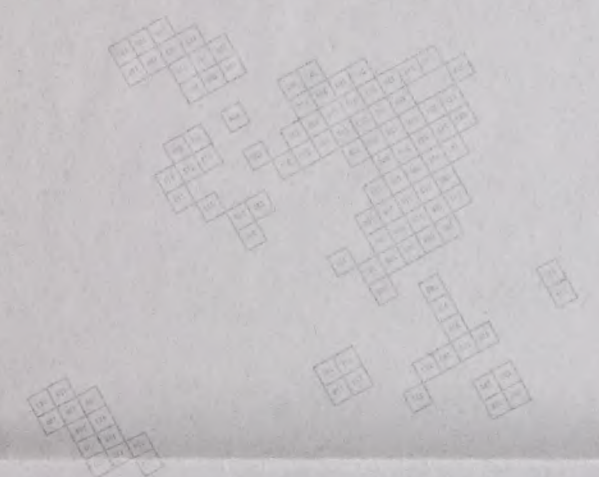
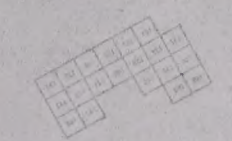
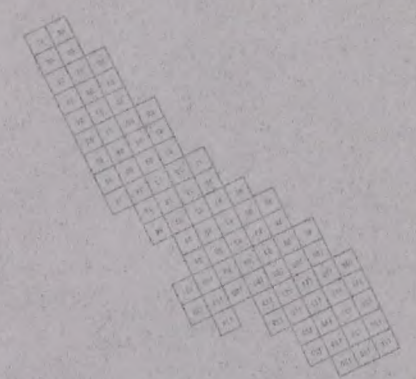


SOUTH ATLANTIC BIGHT
OVERLAY

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225

BLM Library

BLM Library
Denver Federal Center
Bldg. 50, OC-521
P.O. Box 25047
Denver, CO 80225



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW ORLEANS OFFICE
MARINE ENVIRONMENTAL STUDIES

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225